

# Getting Started



RES Workspace Manager 2014

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## Chapter 1: Introduction

From physical desktops and laptops to more virtual-based platforms like Remote Desktops or VDI, the main goal of these technologies is to give users within an organization everything they need to get their jobs done. But as an IT professional, you know it doesn't stop there. Upgrades to new operating systems, renewals and replacements of (virtual) applications, the need for scripts, roaming profiles, group policies and more just lead to very complex IT infrastructures. This complexity makes your job harder, and users can suffer because of slower log on times or the need to log on to multiple environments for different applications.

With the products of RES Software, your IT team can offer users a work environment that is location and time independent. You can even make the desktop user independent—or better yet, make the user desktop-independent. By separating users from their physical desktop, you can manage changes more easily and give them an optimal experience anytime, anywhere.

RES Workspace Manager lets you pick the level of management and control you desire for your organization, today. You can always upgrade as your organization grows or needs new features.

This document describes how to set up a sandbox environment to get started with RES Workspace Manager 2014. The information in this document applies to any edition of RES Workspace Manager 2014.

Before reading **Getting started with RES Workspace Manager 2014**, we recommend reading **Introduction to Workspace Management**, which explains the concepts behind User Workspace Management. This document is available at <http://www.ressoftware.com/products/res-workspace-manager>.

## 1.1 Workspace components

RES Workspace Manager consists of five major components:

- the Management Console
- the Datastore
- the Relay Server (optional)
- the Agents
- the Workspace Composer

### Management Console

The Management Console is the central point of administration of the User Workspace. It is usually run from an administrator's workstation.

### Datastore

The Datastore is the central database of RES Workspace Manager. It contains all configuration settings of User Workspaces.

### Relay Server

Relay Servers are an optional infrastructure component. Relay Servers cache information from the Datastore and pass it on to Agents or to other Relay Servers. Agents can be configured to contact the Datastore directly, or to use Relay Servers.

In a RES Workspace Manager site, both methods can be used at the same time, with some Agents connecting the Datastore and others using Relay Servers. A site can contain several Relay Servers. Relay Server(s) increase the scalability of RES Workspace Manager in sites with many Agents, and improve performance in sites where a direct Datastore connection is slow.

### Agents

Agents are the actual computers on which RES Workspace Manager is installed locally. These can be Terminal Servers, workstations, laptops and VDI desktops. Each Agent can be configured in the Management Console.

Each Agent contains a local cache of all information that is stored in the Datastore. This setup means that a User Workspace does not depend on connectivity to the Datastore or a Relay Server.

### Workspace Composer

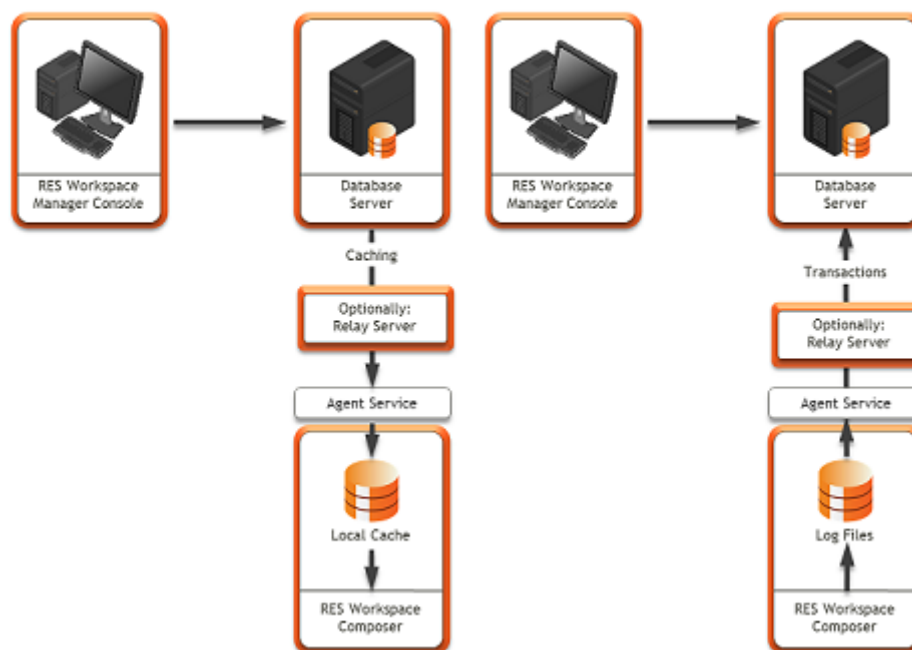
The Workspace Composer uses the data in the local data cache to build User Workspaces, including applications, menu items and settings to which the user is granted access.

## 1.2 Workspace communication

In RES Workspace Manager, all communication between the Datastore or the Relay Server and its Agents is taken care of by the RES Workspace Manager Agent Service, which runs on each Agent.

- The first time a connection between an Agent and the Datastore or the Relay Server is established, for example directly after the installation of the Agent, the RES Workspace Manager Agent Service will download all configuration settings from the Datastore or the Relay Server to the local data cache on the Agent. After this, only Datastore changes will be downloaded.
- The Workspace Composer logs all actions that a user carries out in the User Workspace. Some user actions may also be recorded as Usage Tracking data. These log files and Usage Tracking data are cached locally on the Agent and are uploaded to the Datastore or the Relay Server by the RES Workspace Manager Agent Service.

RES Workspace Manager Downstream Communication      RES Workspace Manager Upstream Communication



## 1.3 RES Workspace Manager Modules

The RES Workspace Manager product family consists of different modules in which different sets of features are available to different levels.

### Dynamic Configuration module

Makes it possible to create a personalized (dynamic) desktop. The first step towards IT as a Service. Users are provided with a context-aware and centrally managed workspace that contains all of the right applications, data, printing and personal settings essential for their productive working. It contains the following technologies:

- Desktop Transformation
- Application Management
- Zero Profile Technology
- Workspace Analysis
- Folder Synchronization
- E-mail Settings

### Delegation and Compliance module

Provides all the information to get insight of what is configured, changed, and used. The second step towards IT as a Service.

Provides administrative insight to improve your ability to manage your infrastructure with clear logs of changes, current status reporting, and license usage data from all users. Plus, it supports administrators in managing different application delivery techniques, which includes presentation and application virtualization. It contains the following technologies:

- Delegation of Control
- Remote Application Integration
- Alerting
- Instant Reporting
- Compliancy
- Tracking and Reporting
- Workspace Branding

### Adaptive Security module

This is the third and last step towards IT as a Service.

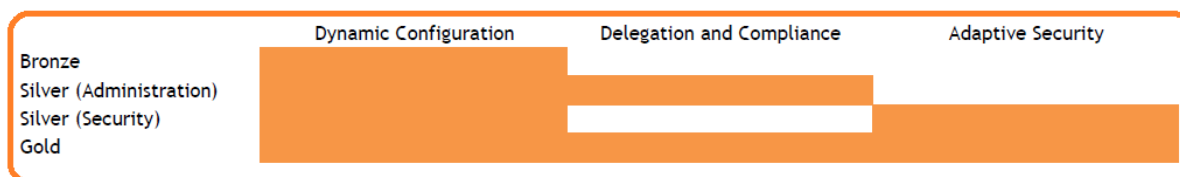
You will be able to deliver a personalized desktop according to company business rules and compliance. Unauthorized actions such as executing certain applications and the use of removable disks are prevented based on the user's context. It contains the following technologies:

- Removable Disk Control
- Application Access
- Network Security
- User Installed Applications
- Locations and Devices
- Dynamic Privileges

Different combinations of these modules are available as different **RES Workspace Manager License editions** (see page 5).

## 1.4 RES Workspace Manager License editions

The RES Workspace Manager **Bronze**, **Silver** and **Gold** license editions are different combinations of modules:



In RES Workspace Manager 2014, the number of modules selected determines the license edition:

- The **Dynamic Configuration** module is the baseline module that is always included in any RES Workspace Manager license edition. The **Bronze** license edition consists of this single module.
- **Delegation and Compliance** and **Adaptive Security** are optional modules that offer additional sets of features. Selecting one of these in addition to **Dynamic Configuration** results in the **Silver** license edition. Selecting both results in the **Gold** license edition.

The **Express Edition** is a free package offering basic functionality for an unlimited number of users, which can be obtained by completing the Express License Wizard. After the evaluation period of 45 days expires, registration is required to be able to continue using the product for free. When using the Express Edition, the following features will be **unavailable** in the user workspace:

- RES VDX
- Folder Synchronization
- Usage Tracking
- Alerting
- Workspace Performance
- Workspace Security

For more details, please check the RES Workspace Manager Module Comparison Chart on <http://www.ressoftware.com> at the **Resources** section.


When creating a new Datastore, the **Datastore Wizard** allows you to select whether you want to evaluate Express edition or a combination of modules. During the evaluation period, you can change this choice (at **Setup > Licensing**) as often as you like, so you can really experience the different license editions in practice.

When importing the first Silver Edition license, or when upgrading from Bronze to Silver, you have to make a definitive choice for either **Delegation and Compliance** or **Adaptive Security**. (Current users of a Silver license edition in RES Workspace Manager 2011 will keep their original combination of modules, i.e. **Composition & Personalization** and **Advanced Administration**).

All license editions are fully compatible. Additional functionality is enabled through license keys, so that upgrades to other license editions require no downtime or additional software deployment.



By default, the RES Workspace Manager Console masks unavailable features by a brief description of that feature. Unavailable sections can be hidden from view, or brought back into view, using the option **Options > Show unavailable features**.

 **Notes**

The first time you run an RES Workspace Manager 2014 Upgrade Pack/Service Pack in your environment, the Upgrade Wizard will also open a Feedback Wizard. The Feedback Wizard will ask your permission to submit general information about your RES Workspace Manager site. Any information submitted will be treated strictly confidentially and will be subject to our Privacy Policy.

Before submitting any information, you can review and save the information to a file. Whether you grant or deny permission, the Feedback Wizard will not appear again when you upgrade subsequent Agents, nor will any information be submitted during those upgrades.

We would greatly appreciate your willingness to submit the information, as it will help us gain valuable insights into the way our product and its specific features are used.

## 1.5 Licensing

After installing RES Workspace Manager 2014, there are 25 named user licenses and 25 RES VDX evaluation licenses available. These evaluation licenses are valid for 45 days.

During this period, you can simply switch between all modules/editions. To use one of these modules/editions in a production environment, you need RES Workspace Manager licenses, which can be obtained from your local reseller.

For additional information about the different modules/editions of RES Workspace Manager, please refer to <http://www.ressoftware.com>.

## 1.6 Video tutorials

We publish video tutorials online to get you started with RES Workspace Manager quickly and easily. These tutorials treat a broad range of subjects, from installing and setting up RES Workspace Manager to configuring the various parts of our product (for example, using the Workspace Model and Managed Applications).

If a video tutorial is available about a specific feature, you can access it using the **View tutorial** button in the Console command bar. The Help file also offers hyperlinks to video tutorials.

## Chapter 2: Installation

### 2.1 Prerequisites

Prerequisites	
Software	<p>One of the following RES Workspace Manager installation files, available for download at <a href="http://www.ressoftware.com/downloads">http://www.ressoftware.com/downloads</a>:</p> <ul style="list-style-type: none"> <li>RES-WM-Installer-2014.exe - This is an installation package that contains the .msi files for the RES Workspace Manager components.</li> <li>RES-WM-2014-Express.msi (contains Express Edition)</li> </ul> <p>Individual components can be extracted from the installer and are also available for download.</p> <p>If you want to use the Relay Server, separate installation files are required. The installation of Relay Server requires Microsoft .NET Framework 4.0 or higher. For more information, please refer to the document <b>Getting Started with Relay Servers</b>.</p>
Software installed on Agent	<ul style="list-style-type: none"> <li>Microsoft .NET Framework 2.0 or higher. Microsoft .NET Framework 4 Client Profile or higher when using User Setting caching.</li> <li>One of the following operating systems: <ul style="list-style-type: none"> <li>Microsoft Windows 2003 x86/x64</li> <li>Microsoft Windows 2003 R2 x86/x64</li> <li>Microsoft Windows XP x86/x64</li> <li>Microsoft Windows Vista x86/x64</li> <li>Microsoft Windows 2008 x86/x64</li> <li>Microsoft Windows 2008 R2 x64</li> <li>Microsoft Windows 7 x86/x64</li> <li>Microsoft Windows 8 x86/x64</li> <li>Microsoft Windows 8.1 x86/x64</li> </ul> </li> </ul>
Hardware	<ul style="list-style-type: none"> <li>Each full installation of RES Workspace Manager requires approximately 104 MB of hard disk space for the application files. This does not include the data stored in the local cache. The hard disk space required for cached data entirely depends on the configuration of your RES Workspace Manager environment. Each Console-only installation of RES Workspace Manager requires approximately 48 MB of hard disk space. These installations do not require any additional disk space for the local cache. Each Agent-only installation of RES Workspace Manager requires approximately 64 MB of hard disk space.</li> <li>Each RES Workspace Manager Agent requires 22 MB of memory. Each user requires a small amount of network drive space on the home drive for storing RES Workspace Manager settings. This amount will increase if User Settings are available to the user, because User Settings are stored in the same location. The required amount of space then depends on the size of the stored User Settings.</li> </ul>

Prerequisites	
Database	<p>One of the following databases:</p> <ul style="list-style-type: none"> <li>▪ Microsoft SQL Server 2000</li> <li>▪ Microsoft SQL Server 2005</li> <li>▪ Microsoft SQL Server 2008 x86/x64</li> <li>▪ Microsoft SQL Server 2008 R2 x86/x64</li> <li>▪ Microsoft SQL Server 2012</li> <li>▪ Microsoft SQL Azure</li> <li>▪ IBM DB2 9.1 or higher x86/x64</li> <li>▪ MySQL 5.0 or higher x86/x64</li> <li>▪ Oracle 10.2 or higher x86/x64</li> </ul>

Database prerequisites	
Microsoft SQL Server 2000 and later (including express editions)	<ul style="list-style-type: none"> <li>▪ Mixed Mode authentication</li> <li>▪ MDAC 2.6 or later on all Agents</li> <li>▪ A named SQL Server System Administrator login ID</li> <li>▪ If Force protocol encryption is enabled: Microsoft Native Client</li> </ul>
Microsoft SQL Azure	<ul style="list-style-type: none"> <li>▪ Microsoft Windows Azure credentials</li> <li>▪ Microsoft SQL Native Client</li> </ul>
Oracle (9i and later, including Express)	<ul style="list-style-type: none"> <li>▪ Oracle DBA credentials</li> <li>▪ Oracle database drivers on all Agents connecting directly to the Datastore</li> </ul>
IBM DB2 (8.1 and later)	<ul style="list-style-type: none"> <li>▪ An existing database and a database user with access to a table space with a page size of at least 8k</li> <li>▪ IBM DB2 OLEDB provider on all Agents connecting directly to the Datastore</li> </ul> <p><b>Preparations for creating a Datastore on DB2</b></p> <ol style="list-style-type: none"> <li>1. Create a local user on the DB2 Server. This account will be used to connect to the RES Workspace Manager Datastore.</li> <li>2. Manually create a database on the DB2 Server.</li> <li>3. Create a Table Space for the user in the new database. Specify a buffer pool of 8KB.</li> <li>4. Create a schema in the new database.</li> <li>5. Add the new user to the new database.</li> <li>6. Assign the applicable authorities, and add the schema and Table Space you created to this user. Make sure you assign the proper privileges.</li> </ol>
MySQL (5.0 and later)	<ul style="list-style-type: none"> <li>▪ MySQL DBA credentials</li> <li>▪ MySQL ODBC driver on the database server and on all Agents connecting directly to the Datastore</li> </ul>

## 2.2 Installing RES Workspace Manager

The first step in setting up User Workspace Management is to install RES Workspace Manager 2014 on the computer on which you want to manage User Workspaces. With the installation of RES Workspace Manager 2014, the Management Console and an Agent will be installed.

- To install RES Workspace Manager 2014 Bronze, Silver or Gold license edition on your computer, use the **RES Workspace Manager Installer** (RES-WM-Installer-2014.exe).
  - The **RES Workspace Manager Installer** is an installation package that contains the .msi files for the different components of RES Workspace Manager, grouped in one executable making it easier to install all necessary RES Workspace Manager components. When using the RES Workspace Manager Installer you can either **Select and install components** on the machine on which you are currently working or **Extract all components** for later use.
    - Choosing the option **Select and install components**, allows you to select which component(s) should be installed on the machine. The installation wizard of the selected component(s) will then guide you through the actual installation. The RES Workspace Manager Installer auto-detects whether the 64-bit or 32-bit version of the component(s) needs to be installed.

You can install the following components:

<b>Clients:</b>	Workspace Composer Management Console
<b>Services:</b>	Relay Server Reporting Services
<b>Extra:</b>	Desktop Sampler Language Packs

- To install RES Workspace Manager 2014 Express Edition on your computer, you can use either RES-WM-2014-Express.msi or RES-WM-2014.msi. RES-WM-2014.msi can only be obtained by extracting all components with the **RES Workspace Manager Installer**.
- When extracting all components, individual .msi files will be saved in the specified location.
  - Instead of installing RES Workspace Manager, you can choose to perform:
    - a Console-only installation, if you do not want to install a RES Workspace Manager Agent on the computer on which you want to manage your environment (use RES-WM-2014-Console.msi).
    - an Agent-only installation, if you want to install RES Workspace Manager without a Console (use RES-WM-2014-Agent.msi).  
Please note that it is not possible to install a Console-only and an Agent-only installation side by side on the same machine. To go from a partial installation to a full installation, first uninstall the Console-only or Agent-only installation, then install the full RES Workspace Manager.

When installing RES Workspace Manager 2014, the Setup Wizard will guide you through the installation process.

- After reading and accepting the End-User License Agreement and specifying the installation folder, you will be asked whether you want the Workspace Composer to launch the next time someone logs on to the computer. If you have not yet created a Datastore, select **No, I will configure this later in the Management Console**. This option is not available for installations on Terminal Servers.
- After the installation of RES Workspace Manager 2014 has completed, the **Connection Wizard** will start. This wizard helps you to connect the installed Agent to an RES Workspace Manager environment.

You can:

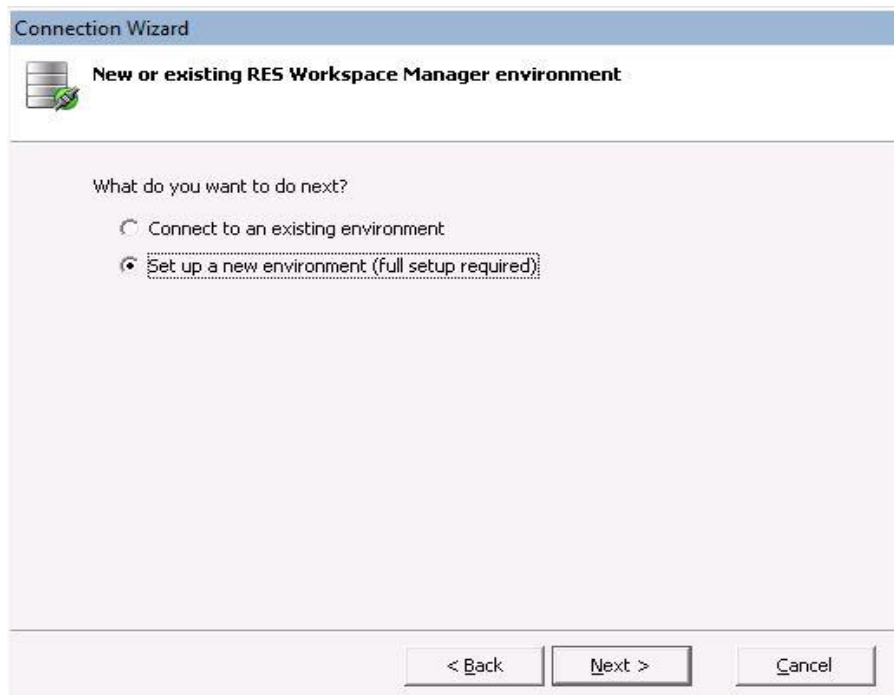
- **Set up a new environment**
- **Connect to an existing environment**



**Note**

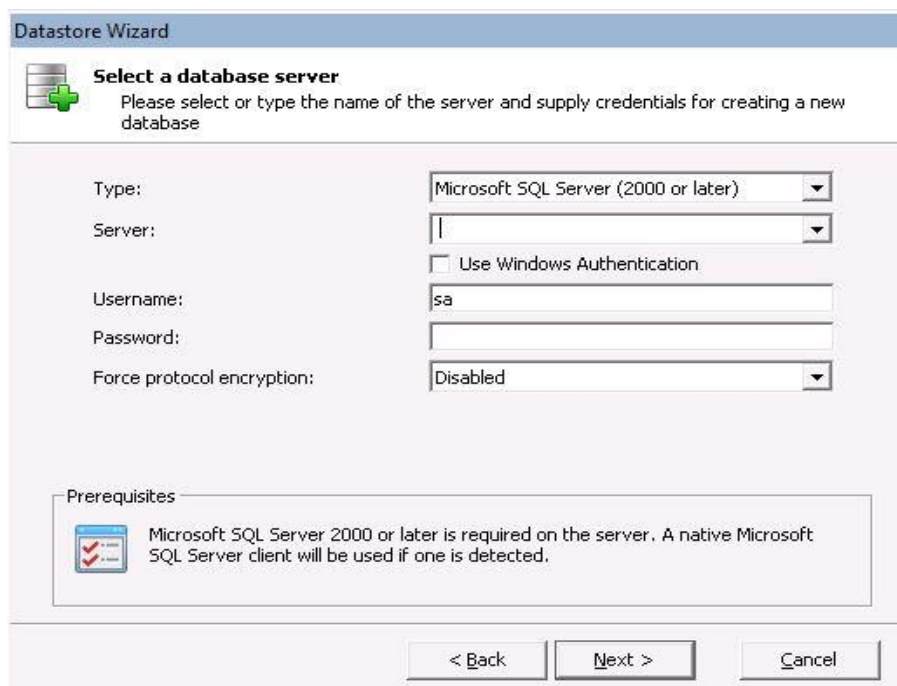
Installing RES Workspace Manager on a domain controller is not recommended as this may cause performance issues and unexpected behavior.

### 2.2.1 *Setting up a new environment*



When choosing to set up a new RES Workspace Manager environment, the Console will open, together with the Datastore Wizard.

1. Follow the steps of the Datastore Wizard to create a new Datastore.



2. When prompted, select the desired evaluation edition of RES Workspace Manager. The evaluation period lasts for 45 days, during which you can switch between editions if desired.
3. Reboot the computer after you have finished the installation process and configured a new Datastore.

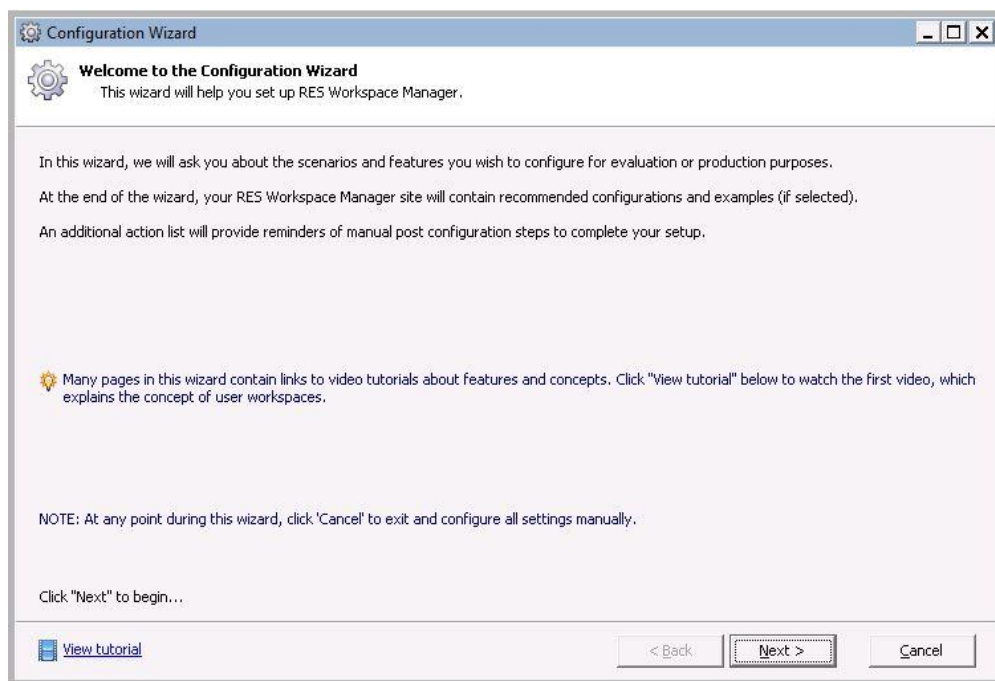
## Configuration Wizard

After configuring a new Datastore, you need to set up your new RES Workspace Manager site. For this purpose, RES Workspace Manager contains a **Configuration Wizard**, which automatically starts up when opening the Management Console. This wizard can guide you through setting up a basic configuration in RES Workspace Manager in a few easy steps, and can create some example objects as reference. These configurations are based on our best practices, and can serve as starting points for your new environment. If you want to do this without using the **Configuration Wizard**, simply click **Cancel**.

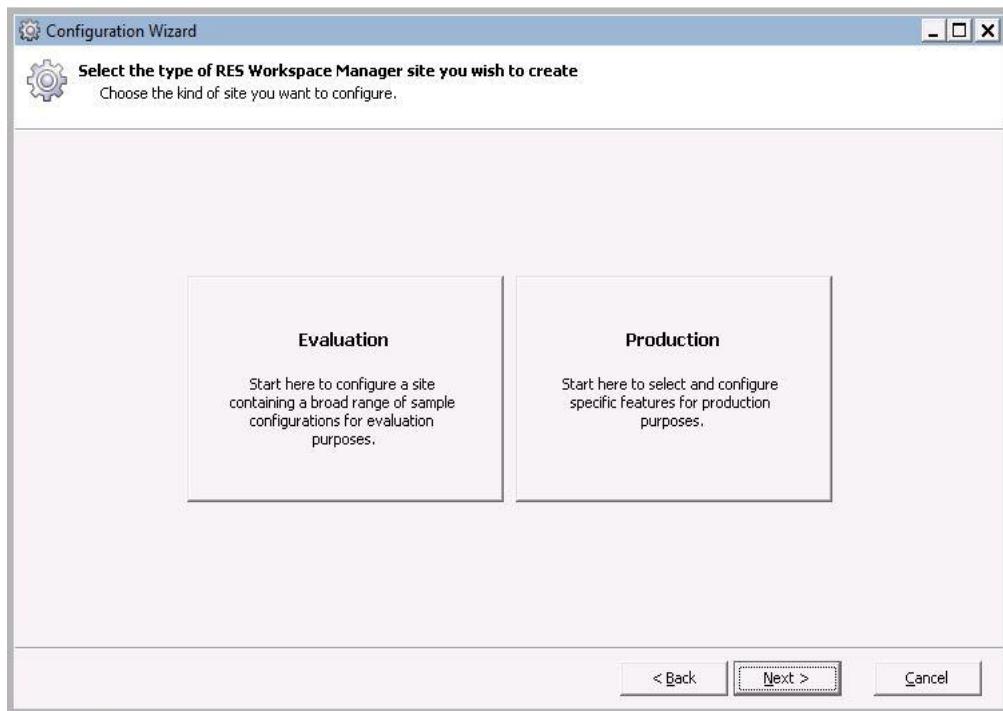
In the **Configuration Wizard**, you have the choice to either create an **Evaluation** site or a **Production** site. Depending on this choice, two different routes for configuration can be followed:

### Creating an Evaluation site

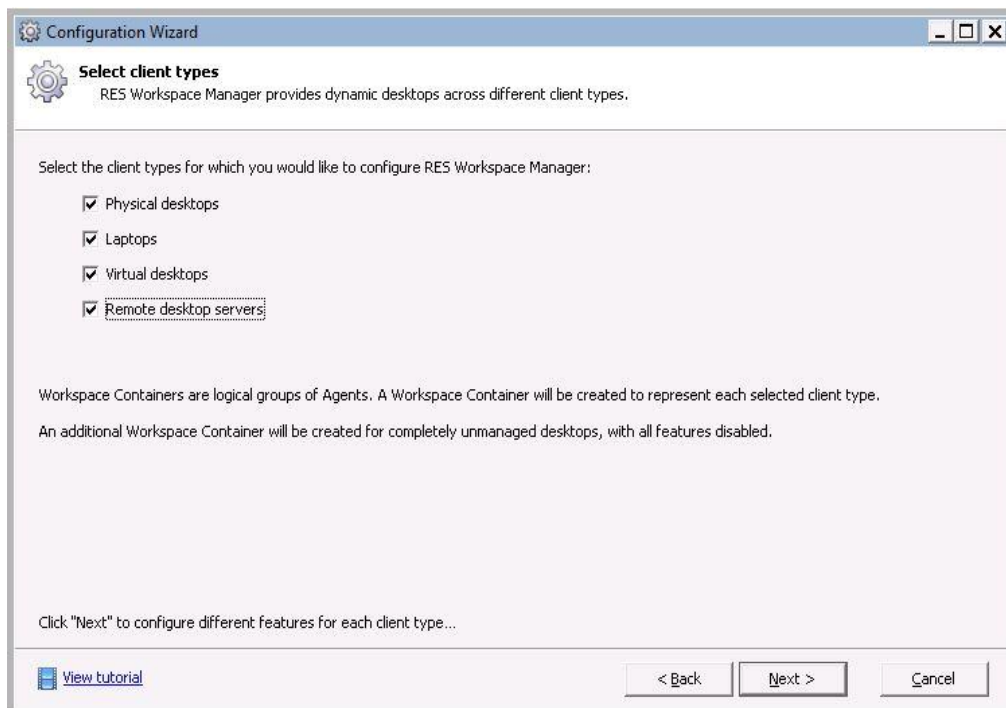
1. When the **Configuration Wizard** starts, an introductory window welcomes you to the configuration wizard. View the online tutorial to learn more about the concepts of workspace management, or click **Next** if you are already familiar with our product.



- You will be asked to select the type of RES Workspace Manager site you wish to create. Select **Evaluation**.

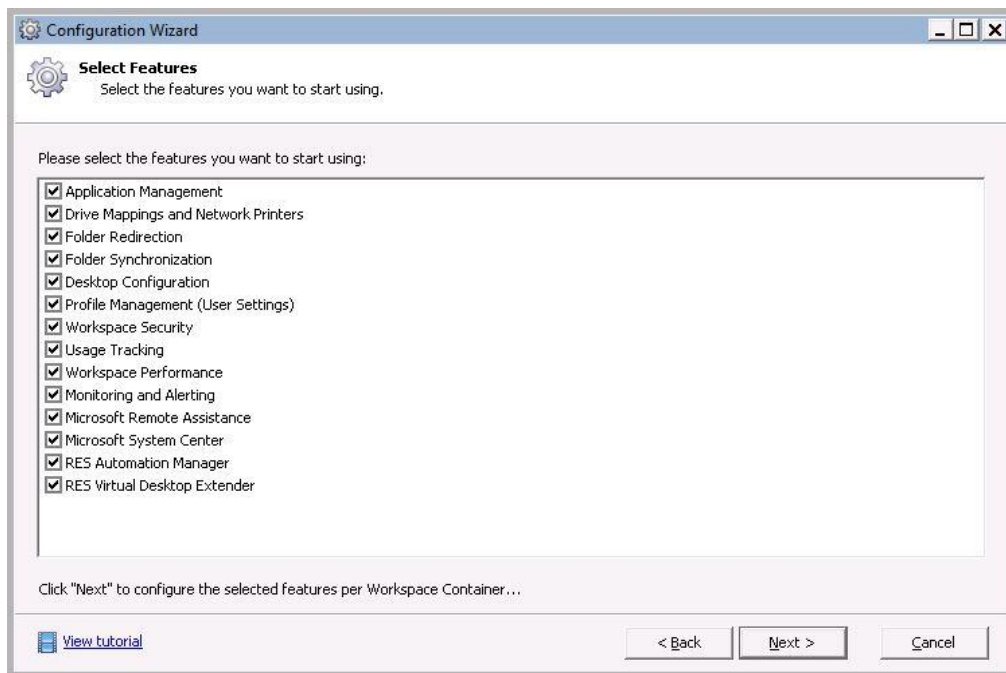


- Select one or more Workspace Containers to create. Workspace Containers are logical groups of Agents (for instance, physical or virtual desktops, laptops or remote desktop servers). At least one Workspace Container must be selected. Besides the Workspace Containers you selected, a Workspace Container "Unmanaged desktops" will be created, with all features disabled. The settings for the other Workspace Containers will be determined in the next steps of the wizard. You can either choose to view the online tutorial to be informed about the concepts of Workspace Containers or click **Next** if you are already familiar with the feature.

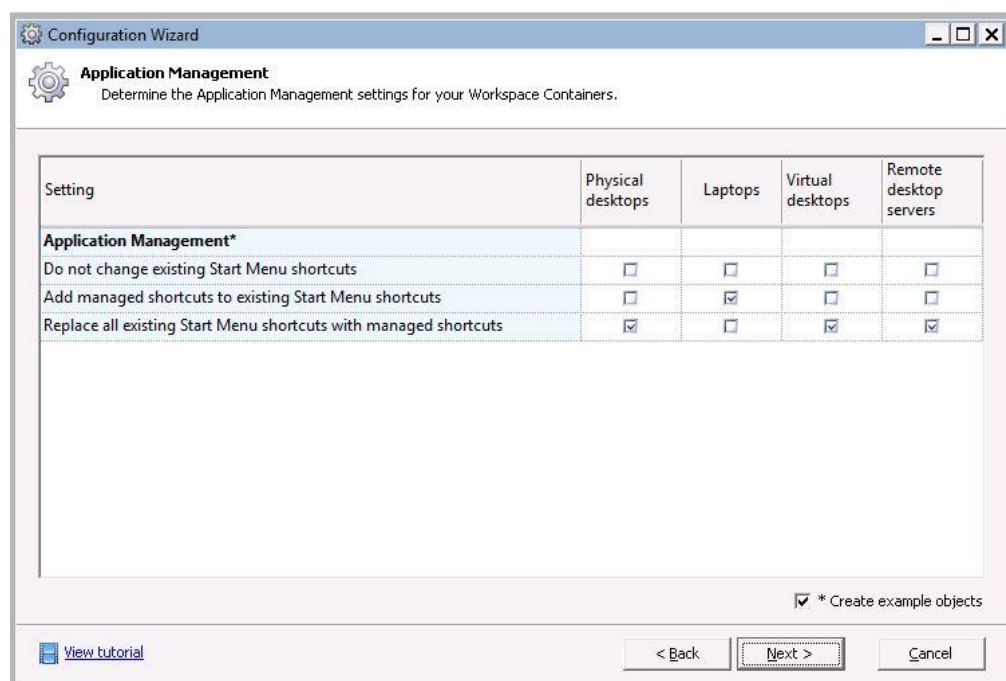




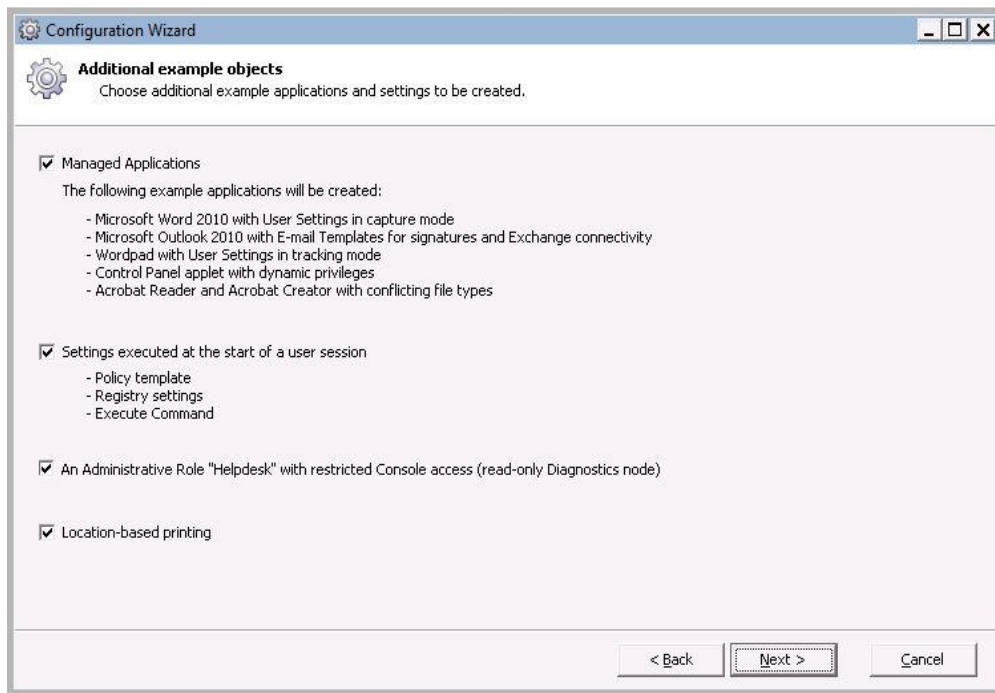
4. Select the features you want to start using. Use **Ctrl + A** to (de)select all features. These features will be configured per Workspace Container. Click **Next**.



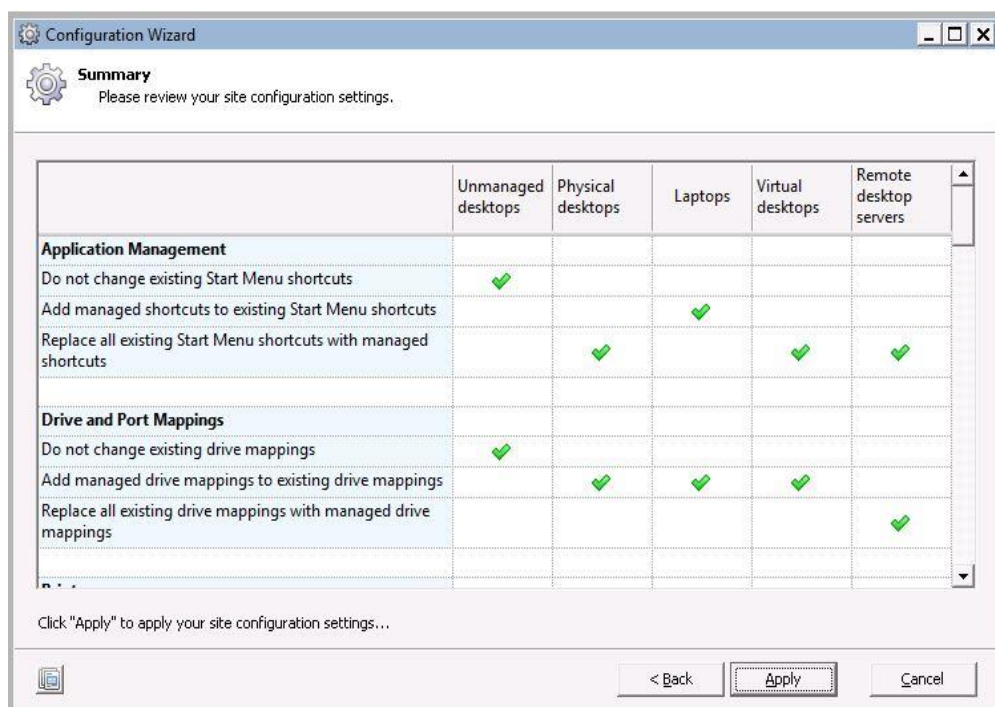
5. Specify the settings for each feature you selected in the previous step. Most features can be enabled or disabled by selecting the relevant check box under the Workspace Container heading. If you want to create example objects for the feature you selected, select the check box **Create example objects**. If you want more information about a specific feature (for example, Workspace performance or Application Management), click **View tutorial**. After you have specified the settings per feature (depending on your selection, you have to go through various windows), click **Next**.



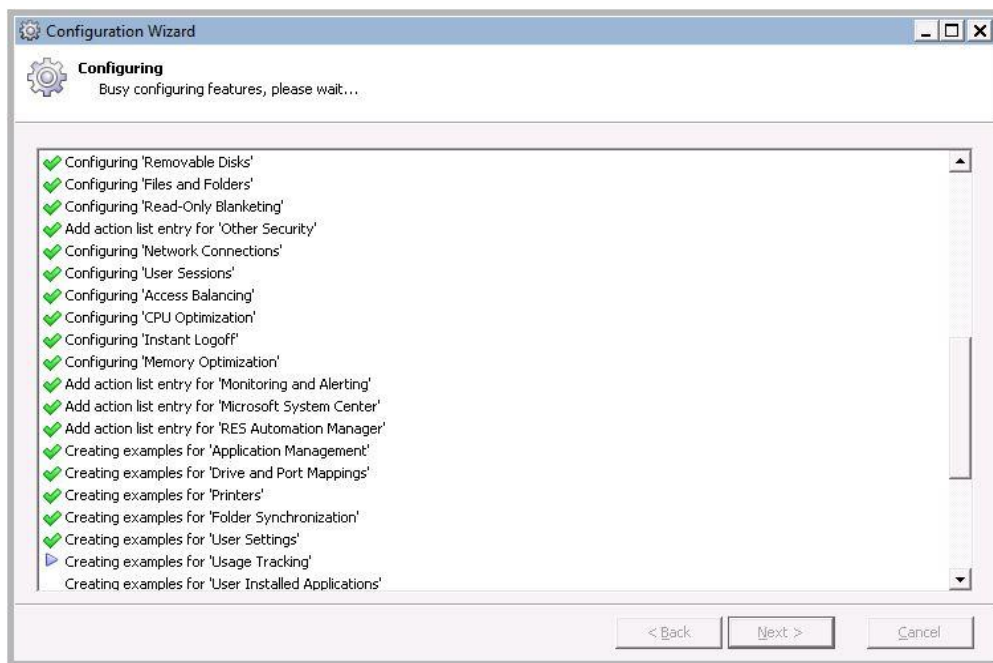
6. Determine which additional example configurations should be created (besides the example configurations you selected with the feature selection), then click **Next**.



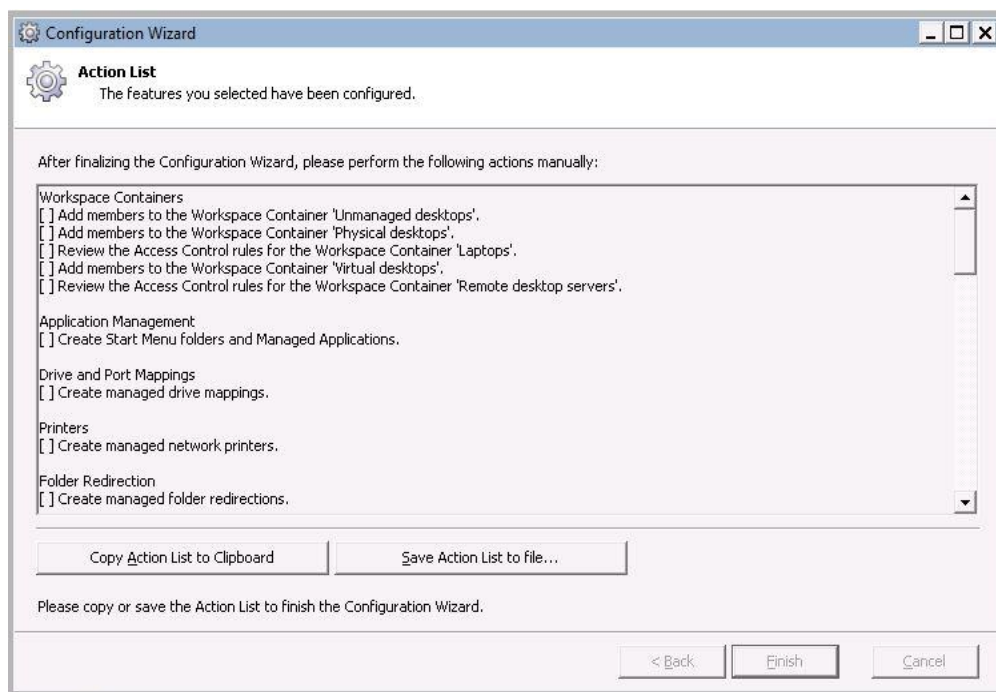
7. Your site's configuration settings are shown in a summary. You can click **Instant Report** to show and/or save the configuration wizard summary. If you want to change any of the settings, click **Back**. If you agree with the settings, click **Apply**.



8. The items will be configured. Click **Next** when the process is completed.



9. The final step is the Action List: a list of instructions for steps that need to be taken manually in order to finalize the configurations designed in the Configuration Wizard. You can close the wizard after saving the Action List to the clipboard or saving it to a file.



10. Work through the Action List, reviewing, adding and editing configurations as required.

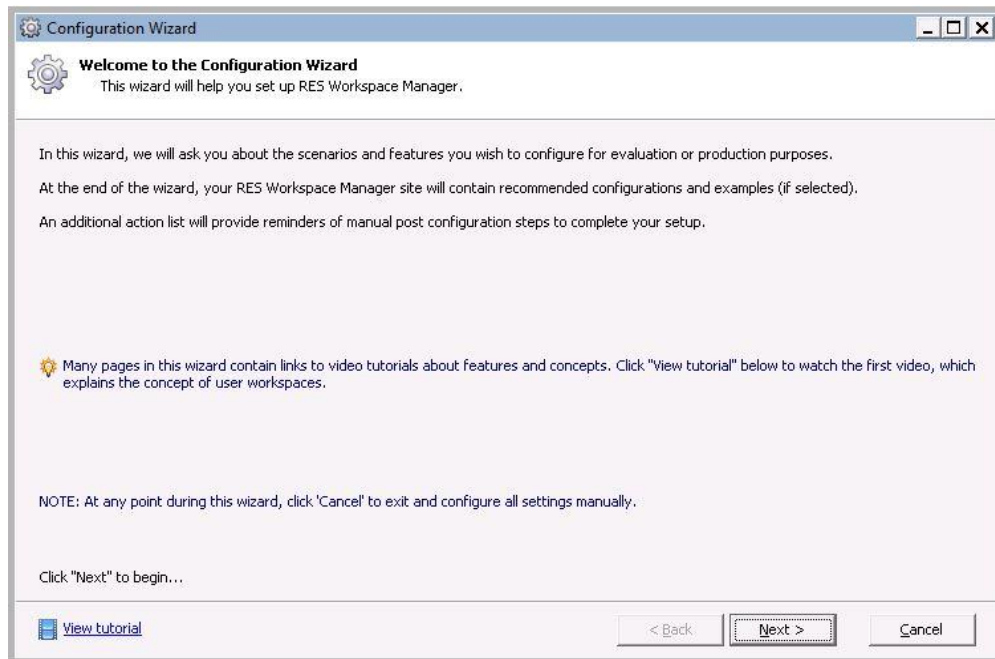


#### Note

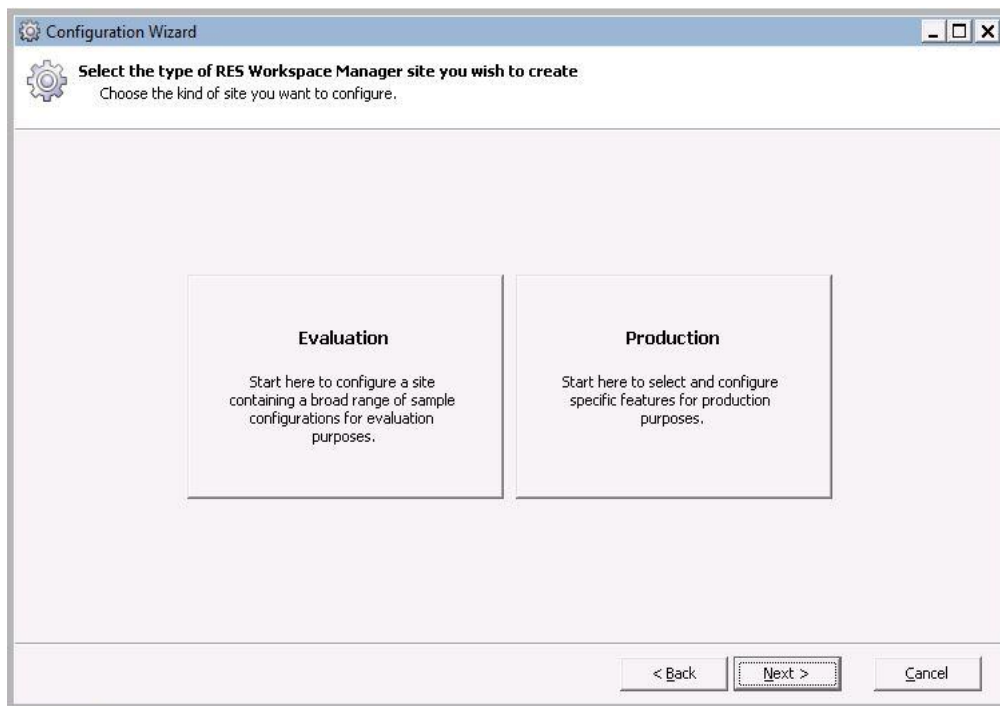
If you click **Cancel** during any of the steps of the configuration wizard, the wizard will exit without changing anything in the configuration of the site. The next time the Console is started, the configuration wizard will start up automatically, as long as no configuration items have been saved.

## Creating a Production site

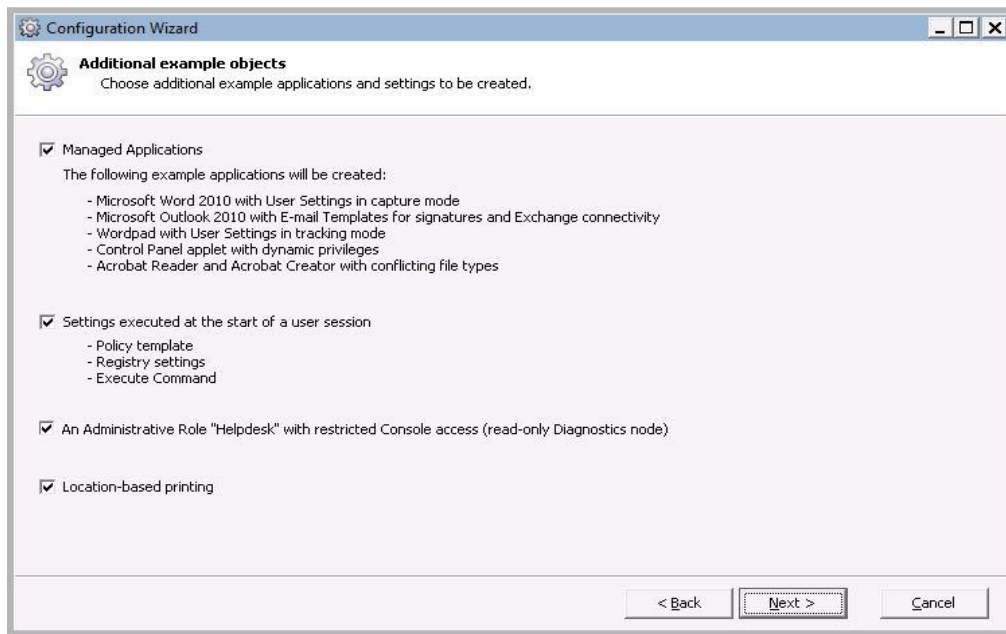
1. When the **Configuration Wizard** starts, an introductory window welcomes you to the configuration wizard. View the online tutorial to learn more about the concepts of workspace management, or click **Next** if you are already familiar with our product.



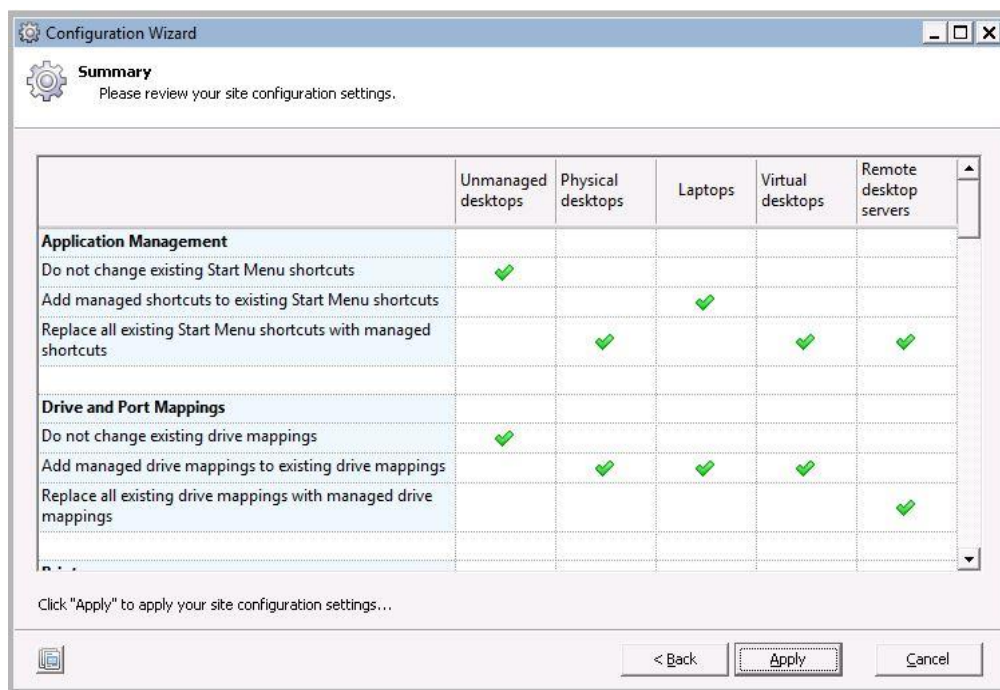
2. You will be asked to select the type of RES Workspace Manager site you wish to create. Select **Production**.



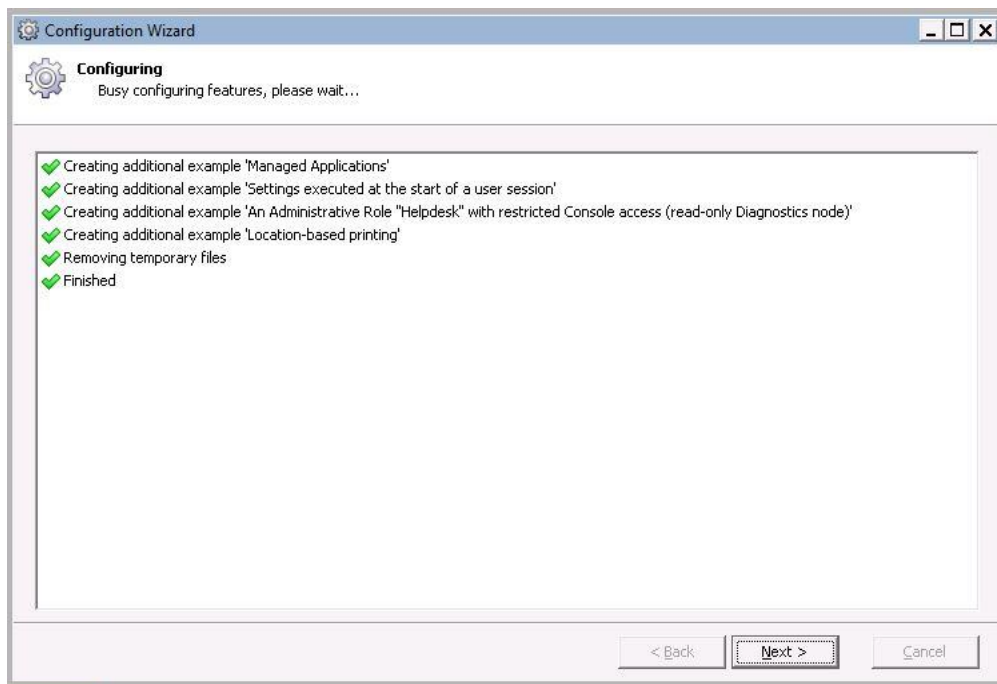
3. Determine which example configurations should be created, then click **Next**.



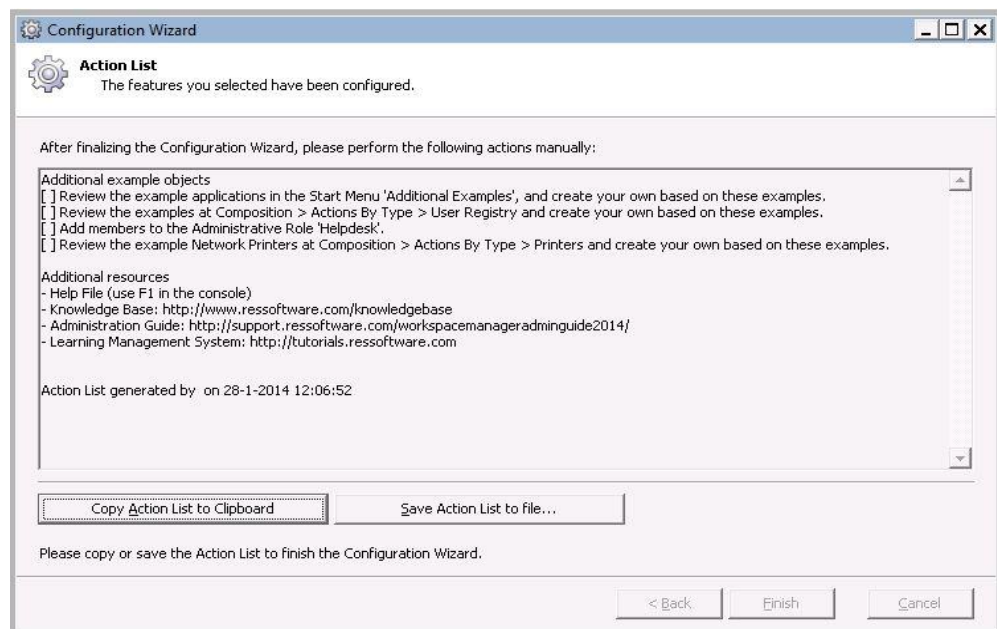
4. Your site configuration settings are shown in a summary. You can click **Instant Report** to show and/or save the configuration wizard summary. If you want to change any of the settings click **Back**. If you agree with the settings, click **Finish**.



5. The items will be configured. Click **Next** when the process is completed.



6. The final step is the Action List: a list of instructions for steps that need to be taken manually in order to finalize the configurations designed in the Configuration Wizard. You can close the wizard after saving the Action List to the clipboard or saving it to a file.



7. Work through the Action List, reviewing, adding and editing configurations as required.



#### Tip

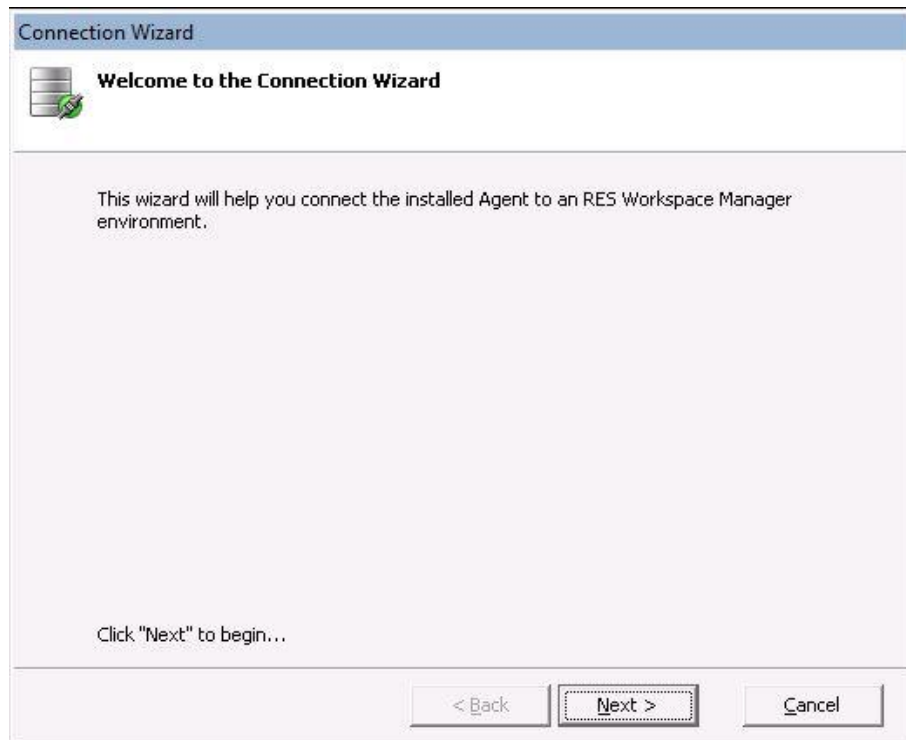
In the **Summary (review site configuration settings)** step of the Configuration Wizard, you can click the **Instant Report** button (not available in RES Workspace Manager Express Edition) to show or save the Configuration Wizard summary. You can use this summary as an overview or checklist containing the items and settings that have been configured.



**Notes**

- To start the Configuration Wizard in a production site that already contains configured items, click **Help > Configuration Wizard**. The steps are the same as in **Creating a Production site**, except for step 2, which is skipped.
- The Console user needs the administrative role of "Technical Manager" with full rights to all nodes in RES Workspace Manager to be able to execute the Configuration Wizard.
- If you are using an **Express Edition** of RES Workspace Manager, only one Workspace Model will be created that you can configure (see step 3 of **Creating an Evaluation site**). In step 4, fewer features are available (Application Management, Drive Mappings and Network Printers, Profile Management (User settings) and RES Automation Manager). Also, the Administrative Role "Helpdesk" will not be created (see step 6 of **Creating an Evaluation site**). The other steps are the same.

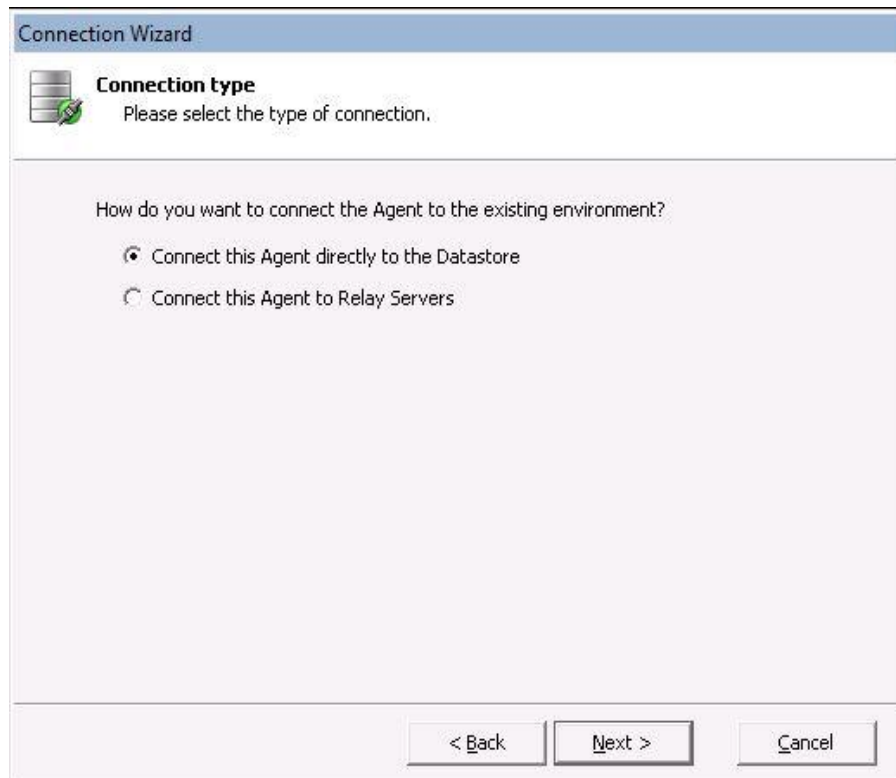
## 2.2.2 *Connecting to an existing RES Workspace Manager environment*



When choosing to connect to an existing RES Workspace Manager environment, you can:

- **Connect the Agent directly to the Datastore** (see page 21)
- **Connect the Agent to Relay Servers** (see page 22)

## Connecting directly to a Datastore



**Connection Wizard**

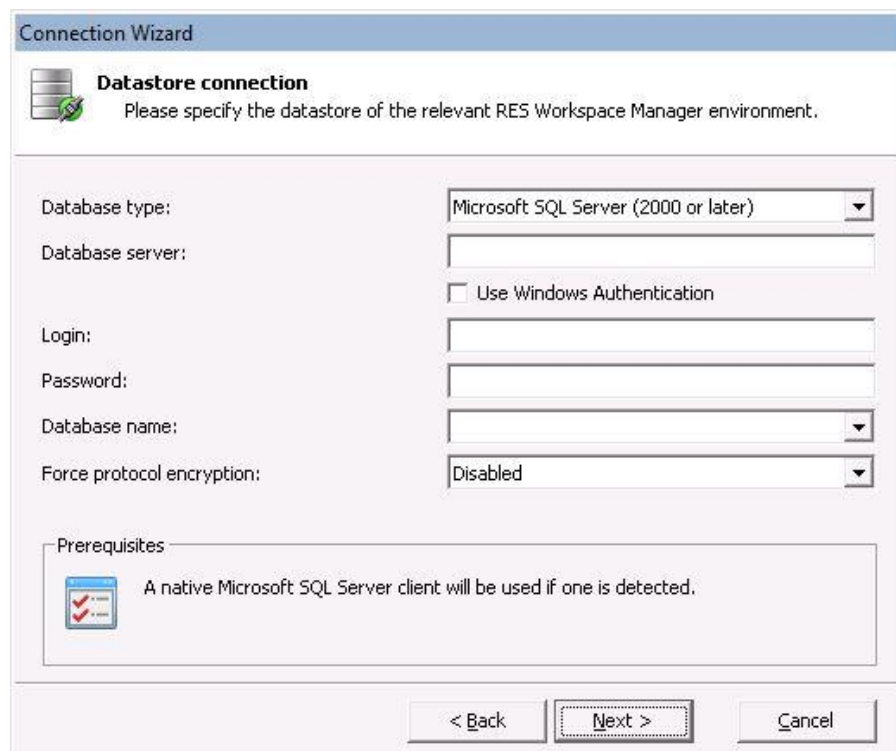
**Connection type**  
Please select the type of connection.

How do you want to connect the Agent to the existing environment?

☒ Connect this Agent directly to the Datastore  
☐ Connect this Agent to Relay Servers

< Back   Next >   Cancel

When choosing to connect the Agent directly to a Datastore, specify the connection settings to the relevant RES Workspace Manager environment and follow the steps of the wizard.




**Connection Wizard**

**Datastore connection**  
Please specify the datastore of the relevant RES Workspace Manager environment.

Database type: Microsoft SQL Server (2000 or later) ▼  
 Database server:   
☐ Use Windows Authentication  
 Login:   
 Password:   
 Database name:  ▼  
 Force protocol encryption: Disabled ▼

Prerequisites

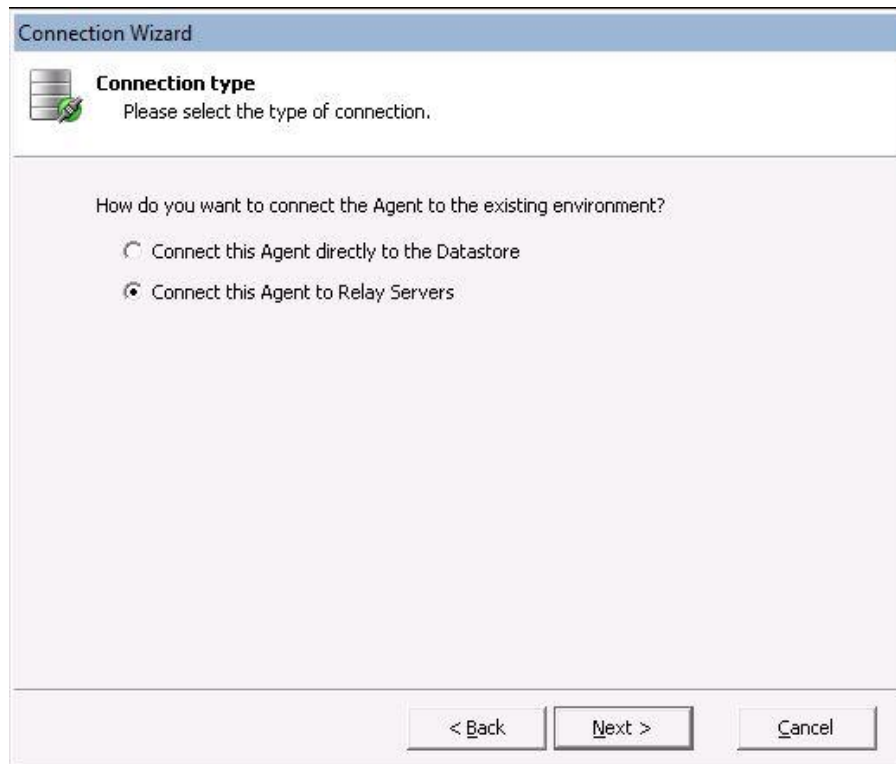
 A native Microsoft SQL Server client will be used if one is detected.

< Back   Next >   Cancel

After saving the connection settings, you can start the Console, which now connects to the specified Datastore.



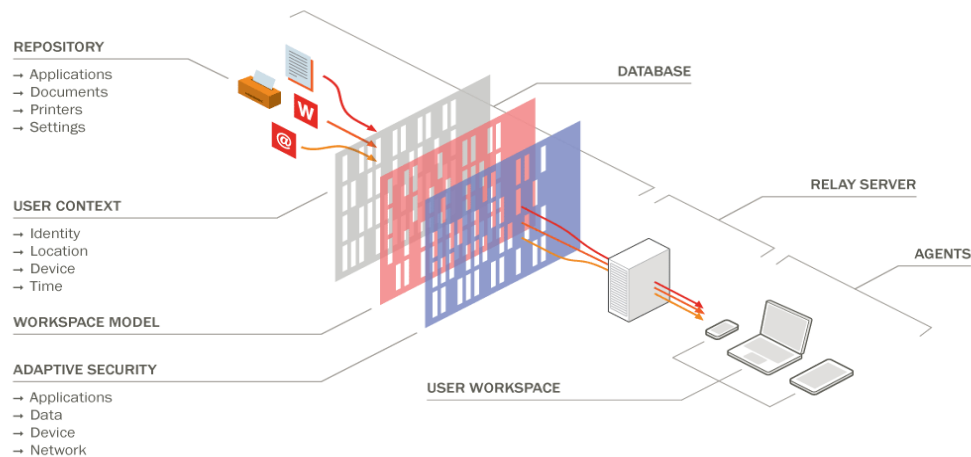
## Connecting to Relay Servers



You can only connect Agents to Relay Servers if this component is already installed and configured in your RES Workspace Manager environment. For further details about Relay Servers, see the document **Getting Started with Relay Servers**, which is available in the **Downloads** section at <http://support.ressoftware.com>.

## Chapter 3: Navigation Map

The navigation tree of the Console contains a navigation map which you can use to click through to various sections of the Console:



The navigation map is available in the top node of the Console browse tree and contains links to the various sections of the Console:

Navigation map	Links to
Repository <ul style="list-style-type: none"> <li>• Applications</li> <li>• Documents</li> <li>• Printers</li> <li>• Settings</li> </ul>	Composition <ul style="list-style-type: none"> <li>• Applications</li> <li>• Files and Folders</li> <li>• Printers</li> <li>• User Settings</li> </ul>
User Context <ul style="list-style-type: none"> <li>• Identity</li> <li>• Location</li> <li>• Device</li> <li>• Time</li> </ul>	User Context <ul style="list-style-type: none"> <li>• Directory Services</li> <li>• Locations and Devices</li> <li>• Locations and Devices</li> <li>• Composition &gt; Applications (time restrictions on managed applications)</li> </ul>
Workspace Model	Administration > Workspace Model
Adaptive Security <ul style="list-style-type: none"> <li>• Applications</li> <li>• Data</li> <li>• Device</li> <li>• Network</li> </ul>	Security <ul style="list-style-type: none"> <li>• Applications &gt; Managed Applications</li> <li>• Data</li> <li>• Data &gt; Removable Disks</li> <li>• Network Connections</li> </ul>
Database	Setup > Datastore
Relay Server	Administration > Relay Servers
Agents	Administration > Agents
User Workspace	Diagnostics > Workspace Analysis

## Chapter 4: Setup

### 4.1 Directory Services

Before you start using RES Workspace Manager 2014, you can optionally specify which Directory Service(s) RES Workspace Manager can use. RES Workspace Manager delivers applications and resources based on the user, OU and group information that it retrieves from the configured Directory Service(s). The Primary Domain of the Agent will be configured by default. Additional Directory Services can be configured in the following way:

1. Launch the Management Console on the computer on which you manage your environment.
2. At **Context > Directory Services**, click **Add**. This opens the **Add Directory Service** window.
  - If you are setting up an environment on a computer that is connected to a network, provide the relevant information to enumerate existing domains, users, groups and Organizational Units.
  - If you are setting up an environment on a non-network local computer, select **Local Computer** as a single domain to be enumerated, after which you can use the local user account that you set up for this purpose.

**New Directory Service**

Properties | Workspace Control

**Settings**

Type	Microsoft Active Directory
Enabled	<input checked="" type="checkbox"/>
Fully qualified domain name	

**Security Context**

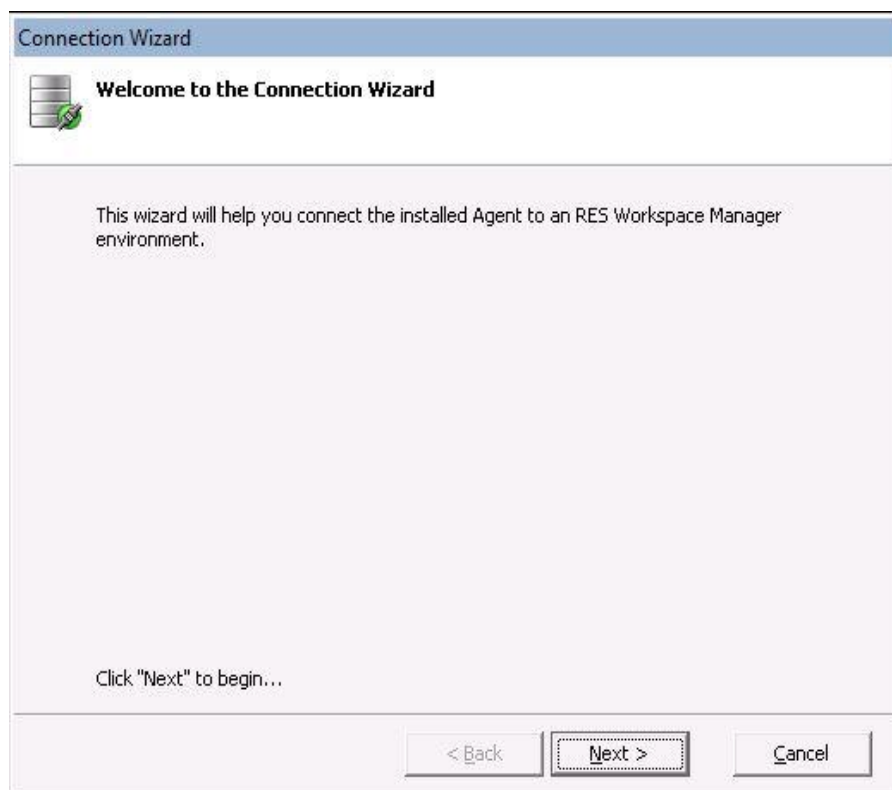
User name	
Password	
NetBIOS domain name	
Allow query from an external domain	<input type="checkbox"/>
Mount point	
Enable support for Domain Local Groups	<input checked="" type="checkbox"/>
Enable support for Group Nesting	<input checked="" type="checkbox"/>
Process Access Control based on	Account names
Use display names instead of full names	<input type="checkbox"/>
Get group membership using local tokens (faster)	<input checked="" type="checkbox"/>

Test now... OK Cancel

## 4.2 Agents

The next step in setting up an RES Workspace Manager environment is to install RES Workspace Manager on other computers. Computers running RES Workspace Manager are Agents.

1. Log on to a user's computer with an administrator account.
2. Install the same RES Workspace Manager Edition that you installed on your computer.
3. When installing RES Workspace Manager, you will be asked during installation whether you want the Workspace Composer to launch the next time someone logs on to the computer. Select **Yes, configure Workspace Composer to run automatically on this computer** so that an RES Workspace Manager will automatically start when users log on to the computer.
4. After the installation of RES Workspace Manager has completed, the **Connection Wizard** will start. This wizard helps you to connect the installed Agent to an RES Workspace Manager environment. When prompted, select **Connect to an existing environment**.



5. In the next step, select whether to connect this Agent directly to the Datastore or to Relay Servers.

**Connection Wizard**

**Connection type**  
Please select the type of connection.

How do you want to connect the Agent to the existing environment?

☒ Connect this Agent directly to the Datastore  
☐ Connect this Agent to Relay Servers

< Back   Next >   Cancel

6. When choosing to connect the Agent directly to a Datastore, specify the connection settings to the relevant RES Workspace Manager environment and follow the steps of the wizard.

**Connection Wizard**

**Datastore connection**  
Please specify the datastore of the relevant RES Workspace Manager environment.

Database type: Microsoft SQL Server (2000 or later)   
 Database server:   
☐ Use Windows Authentication   
 Login:   
 Password:   
 Database name:   
 Force protocol encryption: Disabled

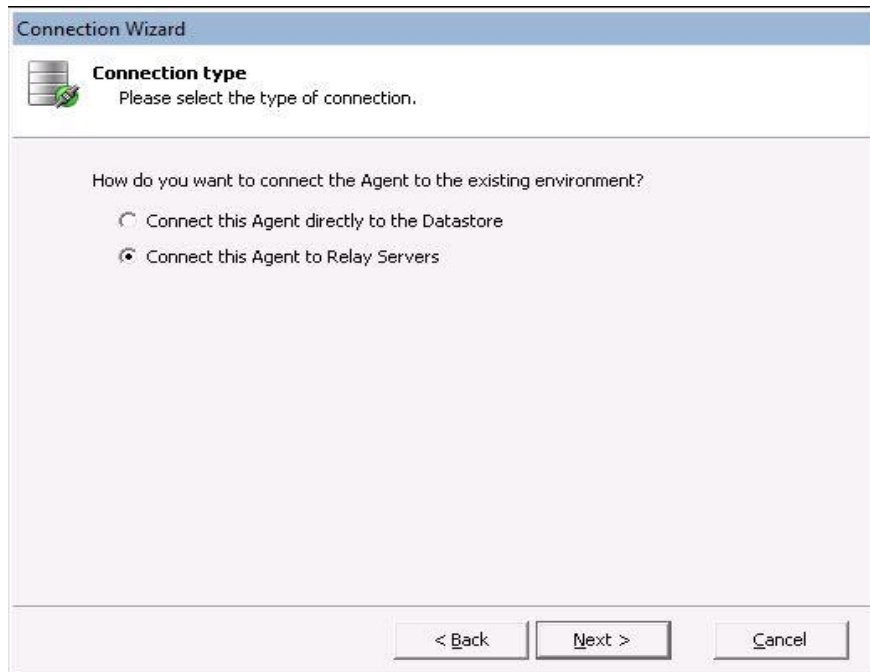
**Prerequisites**  
 A native Microsoft SQL Server client will be used if one is detected.

< Back   Next >   Cancel

7. Log off and reboot the computer.
8. Repeat these steps on any computer that should be an Agent.
9. Log on to a user's computer with a test user account.
10. If you installed RES Workspace Manager on a workstation, a RES Workspace Manager session will start automatically. To change this, open the settings of the Agent in Management Console, at **Administration > Agents** and change the value of the field **Run Workspace Composer**.

## Connecting to Relay Servers

Alternatively, you can specify during installation of the Agent to connect it to Relay Servers.



You can only connect Agents to Relay Servers when this component is already installed and configured in your RES Workspace Manager environment. Relay Servers cache information from the Datastore and pass it on to Agents upon request, so that Agents do not need to contact the Datastore directly. Installing one or more RES Workspace Manager Relay Servers in an RES Workspace Manager environment is optional, but not mandatory.

For further details about Relay Servers, see the document **Getting Started with Relay Servers**, which is available in the **Downloads** section at <http://support.ressoftware.com>.

## Chapter 5: Next steps

Now that you have set up your environment and created a basic configuration with the Configuration Wizard, you can start designing User Workspaces.

A User Workspace is composed each time you log on to a Microsoft Windows desktop. After composition, the desktop contains configured applications, data, printing capabilities and personal settings. Composition of these items is dynamic and based on context (who you are, where you are, what computer you use and the time of day).

Once the unique User Workspace has been composed, it is secured simply and effectively by only allowing the use of the available workspace items. The User Workspace exists until you log off the Windows desktop.

Composing and Securing a User Workspace only takes seconds and is independent from underlying provisioning technologies. User Workspace Management allows you to manage this process easily for many user workspaces at once.

You can optionally use Desktop Transformation technology to transform the Microsoft Windows desktops of your users into User Workspaces.

### 5.1 Desktop Transformation

Desktop Transformation is the step-by-step transformation of static, user-centric and computer-centric desktop items into a User Workspace that allows dynamic, context-aware and independent access to any configuration of applications, data and printers without changing the desktop and application delivery infrastructure, operating system and applications (versions).

The Desktop Transformation technology in RES Workspace Manager consists of two components, the Desktop Sampler and the Workspace Designer.

#### Desktop Sampler

Before you can use the Workspace Designer, you need to install the Desktop Sampler on each computer from which you want to gather information. This can be a desktop, but also a Terminal Server. The Desktop Sampler is a standalone desktop component that unobtrusively samples which applications, printers and data are used by which users at which locations, irrespective of the way in which these settings are managed. The sampled information serves as input for the Workspace Designer.

- To install the Desktop Sampler, use the file `RES-WM-2014-Desktop-Sampler.msi`, which is located in the RES Workspace Manager program folder. When you install the Desktop Sampler, it will be installed in the following directory:
  - `%programfiles%\RES Workspace Manager Desktop Sampler (32-bit)`
  - `%programfiles(x86)%\RES Workspace Manager Desktop Sampler (64-bit)`

## Workspace Designer

With the Workspace Designer, you can get a clear insight in how existing (unmanaged) desktops are used. The Workspace Designer assists in designing User Workspaces by analyzing sampled information taken from the Desktop Sampler. This enables you to transform any existing desktop into a RES Workspace Manager managed Workspace.

The Workspace Designer can provide the following context:

- Directory Services
- Locations and Devices

And the following content:

- Applications
- Data Sources
- Drive and Port mappings
- Drive Substitutes
- Printers

## 5.2 Step 1: User Context

The first step in designing User Workspaces is to set up the context of the user. In RES Workspace Manager, you can set up the context of the user in the Management Console at the **User Context** section. Here you can set up:

- Locations and Devices
- Directory Services
- Workspace Containers
- Connection States
- Languages

If you have used Desktop Transformation technology to set up the context of the user, zones and Directory Services may already exist at **Locations and Devices** and **Directory Services**.

### Workspace Containers

With Workspace Containers, you can organize your environment in ways that reduce its complexity and simplify its management. We advise to organize your environment for example by:

- Computer type (e.g. laptops, (virtual) desktops and Terminal Servers)
- Platform (e.g. Microsoft Windows XP, Windows 7 and Windows Server 2008)
- Geography (e.g. countries and sites)
- Responsibility (e.g. corporate administrators and local administrators)
- Functionality (e.g. basic and advanced workspaces or corporate and local applications)
- Customer (e.g. hosting multiple workspaces on shared infrastructure)
- Importance (e.g. pilot and production environments)



### 5.3 Step 2: Composition

After setting up the context of the user, you can compose the content of User Workspaces. In RES Workspace Manager, you can set up content in the Management Console at the **Composition** section. Here you can set up applications, printing capabilities, additional data such as drive mappings and the user home directory, and personal settings unique to the user.

If you have used Desktop Transformation technology to set up content, some of these settings may already exist. See the chapter **Desktop Transformation** (on page 28).

### 5.4 Step 3: Security


When you have set up the context and the content of the User Workspace, you can secure it. In RES Workspace Manager, you can set this up in the Management Console at the **Security** section.

The security technology in RES Workspace Manager allows you to secure the User Workspace by blocking any unauthorized application, file or network access. In RES Workspace Manager, the level of security can range from loose to very tight. When setting up security, we advise to set any security component in learning mode, and to take it from there.

### 5.5 Step 4: Workspace Model

Before you make the User Workspace available to the user, we advise to review the Workspace Model. In RES Workspace Manager, you can review and set up the Workspace Model in the Management Console at the **Administration** section.

The Workspace Model gives an overview of the mode in which each feature of RES Workspace Manager is running. This allows you to control which parts of the User Workspace will be composed and secured by the Workspace Composer.

- To change a feature's mode from the Workspace Model, use the drop down menu at **Global Model > Applications** or **Global Model > Desktop**.
- To change a feature's mode from within the node of the feature itself, click .
- To create an exception for a Workspace Container, click the **[+]** tab.

## 5.6 Step 5: Enable the Workspace Composer

Once you have designed User Workspaces, you can make them available to your users and manage them, through the Workspace Composer. The Workspace Composer uses the data in the local data cache to build User Workspaces, including applications, menu items and settings to which the user is granted access. It is therefore important that the Workspace Composer starts automatically when users log on to a computer. In RES Workspace Manager, you can set this up in the Management Console at the **Administration** section:

1. Go to **Administration > Agents** in the Management Console.
2. Right-click the Agent(s) on which the Workspace Composer should start automatically when a user logs on and select **Run Workspace Composer > Automatic**.



### Note

You can skip these steps if you have already set this up during installation of the Agents. See the chapter **Agents**.

## Chapter 6: Where to go from here?

You can find information about the use and configuration of RES Workspace Manager in the Help, which is available in the Management Console by pressing **F1**.

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	Netherlands	+31 (0)73 622 8900
	Norway	800-10-731 (Toll Free)
	Sweden	020-791-079 (Toll Free)
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Support Portal:	<a href="http://support.ressoftware.com">http://support.ressoftware.com</a> Support can also be reached on Twitter: <a href="https://twitter.com/ressoftware">@ressoftware</a>	

## Chapter 7: Compatibility Matrix RES Workspace Manager 2014

Supported Operating Systems	
Microsoft Windows 2003	x86/x64
Microsoft Windows 2003 R2	x86/x64
Microsoft Windows 2008	x86/x64
Microsoft Windows 2008 R2	x64
Microsoft Windows Server 2012	x64
Microsoft Windows Server 2012 R2	x64
Microsoft Windows XP	x86/x64
Microsoft Windows Vista	x86/x64
Microsoft Windows 7	x86/x64
Microsoft Windows 8	x86/x64
Microsoft Windows 8.1	x86/x64
Supported Directory Services	
Microsoft Windows NT Domain	
Microsoft Windows 2000 Active Directory	
Microsoft Windows 2003 Active Directory	
Microsoft Windows 2008 Active Directory	
Microsoft Windows 2008 R2 Active Directory	
Microsoft Windows 2012 Active Directory	
Novell eDirectory 8.x or higher	
Samba 3.25 or higher	

Supported Databases		Platform
Microsoft SQL Server 2000		
Microsoft SQL Server 2005		x86/x64
Microsoft SQL Server 2008		x86/x64
Microsoft SQL Server 2008 R2		x86/x64
Microsoft SQL Server 2012		x86/x64
Microsoft SQL Native Client 2005		x86/x64
Microsoft SQL Native Client 2008		x86/x64
Microsoft SQL Native Client 2012		x86/x64
Microsoft SQL Azure		
IBM DB2 9.1		x86/x64
IBM DB2 9.5		x86/x64
IBM DB2 9.7		x86/x64
IBM DB2 9.8		x86/x64
MySQL 5.0 or higher		x86/x64
Oracle 10.2		x86/x64
Oracle 11.1		x86/x64
Oracle 11.2		x86/x64
Supported Hosted desktops/applications		Platform
Citrix XenApp 4.x		x86
Citrix XenApp 5.0		x86/x64
Citrix XenApp 6.0		x64
Citrix XenApp 6.5		x64
Microsoft Terminal Services 2003		x86/x64
Microsoft Terminal Services 2003 R2		x86/x64
Microsoft Terminal Services 2008		x86/x64
Microsoft Remote Desktop Services 2008 R2		x64
Microsoft Remote Desktop Services 2012		x64
Supported Virtual desktop infrastructures		
Citrix XenDesktop 4		
Citrix XenDesktop 5		
Citrix XenDesktop 5.5		
Citrix XenDesktop 5.6		
VMware View 4.x		
VMware View 5 (except for the RES Workspace Manager feature <b>Remote Assistance</b> )		
VMware View 5.2 (except for the RES Workspace Manager feature <b>Remote Assistance</b> )		

<b>Supported Application Virtualization</b>		<b>Platform</b>
Microsoft Application Virtualization 4.x up to 4.6		x86/x64
Microsoft Application Virtualization 5		x86/x64
Microsoft Application Virtualization 5 SP1		x86/x64
Citrix Application Streaming 1.x, 5.2		x86/x64
Citrix Application Streaming 2.x, 6.0		x86/x64
VMware ThinApp 4.x		
<b>Supported Applications for E-mail Settings</b>		<b>Platform</b>
HP OpenMail		
Lotus Notes Mail		
Microsoft Exchange Server 2013		
Microsoft Mail		
Microsoft Office 2007, 2010, 2013		
Microsoft Outlook Express		
Nortel CallPilot Desktop Messaging 1.07.x, 2.50.x or higher		
Oracle Collaboration Suite (Oracle Connector version 9.x or higher)		
Zarafa Groupware Server 6.x, 7.x		
<b>Supported Browsers for Website Usage Tracking</b>		<b>Platform</b>
Microsoft Internet Explorer 6, 7, 8, 9, 10		x86/x64
Microsoft System Center Configuration Manager 2007		
Microsoft System Center Configuration Manager 2012		
Microsoft System Center Configuration Manager 2012 SP1		
Microsoft System Center Configuration Manager 2012 R2		
<b>Citrix Ready certified for</b>		<b>Platform</b>
XenApp 4.5 (Presentation Server)		x64/x32
XenApp 5.0		x64/x32
XenApp 6.0		x64
XenApp 6.5		
XenDesktop 4.0		
XenDesktop 5.0		
XenDesktop 5.5		
XenDesktop 5.6		
<b>VMware Ready certified for</b>		
VMware View 5		